Jonathan Wonwook Kim

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

BS. Electrical Engineering and Computer Science
Expected May 2015
GPA: 3.73

SKILLS

CODING/ENGINEERING

Proficient:
Java • Python • Ruby • MySQL
Linux Shell • Android • ROS
OpenCV • Arduino • LaTeX

Familiar:
Javascript • Flask • Unity • HTML
SolidWorks • C# • C++ • Hibernate
CSS • PCB Layout • Soldering

HONORS/AWARDS

Berkeley SURF Conference 2013, 1st Place Poster Competition
Eta Kappa Nu (EECS Honors Society)
Tau Beta Pi (Engineering Honors Society)
National Merit Scholarship (2011)
Eagle Scout (October 2010)

COURSEWORK

Algorithms
Artificial Intelligence
Computational Biology
Data Structures
Discrete Math and Probability
Systems and Signals
Circuits
Multivariable Calculus
Linear Algebra
Biology
Organic Chemistry

INTERESTS

Ran the full course of the San Francisco Marathon on July 29th, 2012 in 3 hours 17 minutes
Play keyboard bimonthly for a 500-member church's worship band

RESEARCH EXPERIENCE

BIOMATERIALS & TISSUE ENGINEERING LAB | Prof Kevin Healy

Jan 2014 - Present | Berkeley, CA

- Wrote code to count stained, bead-bound CD4+ T-cells in blood micrographs
- Worked closely with an interdisciplinary team to design and build a low-cost, point-of-care diagnostic device for tracking the progression of HIV/AIDS

BERKELEY AUTOMATION LAB | Prof Ken Goldberg

Sept 2012 - Present | Berkeley, CA

- Developed low-level embedded code to control a haptic device for rendering slip contact force to a user's fingertip
- Wrote a LeapMotion app for teleoperation of the RAVEN II surgical robot
- Wrote robust code for computer vision/image processing for the RAVEN surgical robot
- Designed and implemented robust gripper localization from camera feeds

INDUSTRY EXPERIENCE

FITBIT, INC | Research Software Prototyper

May 2015 - | San Francisco, CA

- Will be working on the R&D team to rapidly prototype initial web designs

FITBIT, INC | Software Engineering Intern

May 2014 - Aug 2014 | San Francisco, CA

- Regularly pushed high-quality Java code to production as a vital member of a 6-person site engineering team
- Contributed to the execution and rollout of social features for fitbit.com
- Designed and implemented a backend feature collating Fitbit users in the same geographical location

REFEREED CONFERENCE PUBLICATIONS

- **A Haptic Slip Feedback Device Using Interwoven Belts for Displaying Lateral and Torque Slip.** C. Ho*, **J. Kim***, K. Goldberg. IEEE Symposium on Haptics, 2015 (Accepted). *The paper states, *"These two authors contributed equally to the work."*
- **Autonomous Multilateral Debridement with the Raven Surgical Robot.** B. Kehoe, G. Kahn, J. Mahler, **J. Kim**, et al, International Conference on Robotics and Automation (ICRA), 2014.
- **Ultrasonic Microparticle Trapping by Multi-Foci Fresnel Lens.** Y. Choe, **J. Kim**, K.K. Shung, E.S. Kim. IEEE International Frequency Control Symposium, 2011.

REFEREED JOURNAL PUBLICATIONS

- **Microparticle Trapping by Ultrasonic Bessel Beam.** Y. Choe, **J. Kim**, K.K. Shung, E.S. Kim, Applied Physics Letter, 2011.